

Abstract

A method and system for detecting and locating defects in an integrated circuit.

- 5 A time-varying input signal is applied to the integrated circuit, power signals produced at a plurality of respective ordered connections in response to the input signal are measured, and one or more defects in the integrated circuit are identified from the power signals so measured. A system is provided having a probe for connecting to the die of an integrated circuit prior to final packaging, a testing system for applying transient input signals to the
- 10 die and acquiring die power signal measurements in response thereto, and a data processor for determining whether the power signal measurements indicate the presence of a defect in the die. Also provided is a method for reducing the effect of contact resistance from test probe connections. As a way of implementing the approach of the method and system there is also provided an integrated circuit having a plurality of
- 15 ordered connections to the power grid and a plurality of calibration circuits associated with respective ordered connections so as to selectively inject transient signals onto the power grid at respective locations.